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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,138	12/29/2000	Barry R. Robbins	P 068727 272411	1792

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PILLSBURY WINTHROP LLP
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EXAMINER

PHUNKULH, BOB A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/753,138	Applicant(s) ROBBINS ET AL.	
	Examiner Bob A. Phunkulh	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-20 and 36-41 is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-14, 21-30 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 31 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/10/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8-9, 12-14, 22, 29-30, 33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. (US 6567408), hereinafter Li.

Regarding claim 1, Li discloses a computer readable medium encoded with data instructions, such that when executed by a computer is caused to perform processes comprising:

receiving the IP packets; classifying the IP packets according to their type, source and destination; and

routing the packets to their destination address based on their classification (see col. 7 line 22 to col. 8 line 3).

Regarding claim 8, Li discloses the types of destination address classifications are subscriber addresses, network addresses, internal gateway addresses, virtual gateway addresses, external addresses or broadcast addresses (see col. 7 lines 35-53)

Regarding claim 9, Li discloses a method for routing Internet Protocol (IP) packets between network nodes for seamless mobile IP host subscriber service as the mobile IP host moves between network nodes comprising:

receiving the IP packets; and
sending the IP packets to a Receive Input Stage, then to a Receive Forwarding Stage when they are received from a node on the Internet (see col. 7 line 22 to col. 8 line 3).

Regarding claim 12, Li discloses method for routing Internet Protocol (IP) packets between network nodes for seamless mobile IP host subscriber service as the mobile IP host moves between network nodes comprising:

sending the IP packets to a Transmit Input Stage then to a Transmit Forwarding Stage when the packets are received from a local application(see col. 7 line 22 to col. 8 line 3).

Regarding claim 13, Li discloses the Transmit Input Stage comprises determining the classification of the of the IP packet based on a route table(see col. 7 line 22 to col. 8 line 3).

Regarding claim 14, Li discloses the Transmit Forwarding Stage comprises: routing the IP packets to their destination based on their classification(see col. 7 line 22 to col. 8 line 3).

Regarding claim 22, Li discloses a computer readable medium encoded with data instructions, such that when executed by a computer is caused to perform processes comprising:

receiving the IP packets; classifying the IP packets according to their type, source and destination; and

routing the packets to their destination address based on their classification (see col. 7 line 22 to col. 8 line 3).

Regarding claim 29, Li discloses the types of destination address classifications are subscriber addresses, network addresses, internal gateway addresses, virtual gateway addresses, external addresses or broadcast addresses (see col. 7 lines 35-53)

Regarding claim 30, Li discloses a computer readable medium encoded with data instructions, such that when executed by a computer is caused to perform processes comprising:

receiving the IP packets; and

sending the IP packets to a Receive Input Stage, then to a Receive Forwarding Stage when they are received from a node on the Internet (see col. 7 line 22 to col. 8 line 3).

Regarding claim 33, Li discloses computer readable medium encoded with data instructions, such that when executed by a computer is caused to perform processes comprising:

sending the IP packets to a Transmit Input Stage then to a Transmit Forwarding Stage when the packets are received from a local application(see col. 7 line 22 to col. 8 line 3).

Regarding claim 34, Li discloses the Transmit Input Stage comprises determining the classification of the of the IP packet based on a route table(see col. 7 line 22 to col. 8 line 3).

Regarding claim 35, Li discloses the Transmit Forwarding Stage comprises: routing the IP packets to their destination based on their classification(see col. 7 line 22 to col. 8 line 3).

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto (US 5,781,552).

Regarding claim 21, Hashimoto discloses an apparatus comprising:
a network interface (LAN network interface 101, see figure 1);
a central processing (CPU) coupled to the network interface to facilitate routing (the controller 104, see figure 1 and col. 3 lines 14-33);

a route table coupled to the CPU for determining the rout destination the IP packets based on their classification (routing table 1058, see figure 1 and col. 3 lines 14-33); and

address Resolution Protocol (ARP) table coupled to the CPU to storing IP packet classifications for mapping the IP addresses of the IP packets (ARP table 106, see figure 1, and col. 3 lines 14-33).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Hashimoto.

Regarding claims 2, 23, Li fails to disclose the service point unit includes an address resolution protocol table of the classifications to map the IP address of the IP packets.

Hashimoto, on the other hand, discloses a host station 10 includes both the routing table 105 and the ARP table 106 for routing packets between IP network and LAN network (see figure 1 and col. 3 lines 26-33).

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Therefore, it would have obvious to one having ordinary skill in the art at the time of invention was made to includes the teaching of Hashimoto especially providing the ARP table in the service point unit of Li for providing the Li's service point with ability to communicate with both LAN (layer 2 network) and IP networks (layer 3 network).

Claims 3-7, 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view Forslow (US 6,608,832).

Regarding claims 3-4, 24-25, Li fails to discloses receiving IP packets with a tunnel command or a local application.

Forslow, on the other hand, teaches tunneling between two IP nodes (SGSN and GGSN, see col. 3 lines 36-52).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to includes the teaching of Forslow in the system taught by Li in order to provides ability to decapsulate/encapsulate of IP packets between two IP nodes.

Regarding claim 5, Li discloses the type of IP packets are Application Resolution Protocol (ARP) request packets, ARP reply packets, IP packets, Interference packets, or link layer packets (see col. 7 lines 35-53).

Regarding claim 6, Li inherently discloses interference packet is a packet that gets transmitted between nodes with the same network visibility (classifying the incoming packets according to a set of rules, see col. 7 lines 2 to col. 8 line 4).

Regarding claim 7, Li inherently discloses a link layer packet is an IP packet that has a hardware address (classifying the incoming packets according to a set of rules, see col. 7 lines 2 to col. 8 line 4).

Regarding claim 26, Li discloses the type of IP packets are Application Resolution Protocol (ARP) request packets, ARP reply packets, IP packets, Interference packets, or link layer packets (see col. 7 lines 35-53).

Regarding claim 27, Li inherently discloses interference packet is a packet that gets transmitted between nodes with the same network visibility (classifying the incoming packets according to a set of rules, see col. 7 lines 2 to col. 8 line 4).

Regarding claim 28, Li inherently discloses a link layer packet is an IP packet that has a hardware address (classifying the incoming packets according to a set of rules, see col. 7 lines 2 to col. 8 line 4).

Allowable Subject Matter

Claims 15-19, 20, 36-41 are allowed.

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Claims 10-11, 31-32, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

Hand-delivered responses should be brought to:

220 20th Street S.

Crystal Plaza Two, Lobby, Room 1B03

Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Friday from 8:00 A.M. to 4:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Douglas W. Olms**, can be reach on **(571) 272-3079**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh



**BOB PHUNKULH
PRIMARY EXAMINER**

*TC 2600
Art Unit 2661
September 30, 2004*